

IN THE CLAIMS

Please amend the claims as follows:

Claim 1 (Original): A data communication device that is connected to a central management device through a communication line, and controls communication between said central management device and an image-forming device, said data communication device comprising:

a power source;

a data-storing unit storing data related to said image-forming device;

a data transmission unit;

a transmission-request generating unit being always supplied with electricity from said power source, and generating a transmission request that requests for transmission of the data to said central management device; and

a power-supply control unit being always supplied with the electricity from said power source, and supplying the electricity from said power source to a communication-related part including said data transmission unit, if said transmission-request generating unit generates the transmission request,

wherein said data transmission unit transmits the data to said control management device if being supplied with the electricity from said power source.

Claim 2 (Original): The data communication device as claimed in claim 1, wherein said power-supply control unit stops supplying the electricity from said power source to said communication-related part, after said data transmission unit completes transmitting the data related to said image-forming device to said central management device.

Claim 3 (Original): The data communication device as claimed in claim 1, wherein said transmission-request generating unit includes:

a time generating unit generating a current time; and

a time comparing unit comparing the current time with a predetermined data-transmission time, and generating the transmission request if deciding that the current time matches with the data-transmission time.

Claim 4 (Original): The data communication device as claimed in claim 1, wherein said transmission-request generating unit includes:

a time generating unit generating a current time;

a data deciding unit comparing the current time with a predetermined data-transmission time, and deciding whether the data related to said image-forming device is stored in said data-storing unit if deciding that current time matches with the data-transmission time; and

a transmission requesting unit generating the transmission request if said data deciding unit decides that the data related to said image-forming device is stored in said data-storing unit.

Claim 5 (Original): The data communication device as claimed in claim 1, wherein said transmission-request generating unit includes:

a time generating unit generating a current time;

a data deciding unit deciding whether the data related to said image-forming device is stored in said data-storing unit; and

a time comparing unit comparing the current time with a predetermined data-transmission time corresponding to the data related to said image-forming device if said data

deciding unit decides that the data related to said image-forming device is stored in said data-storing unit, and generating the transmission request if deciding that the current time matches with the data-transmission time.

Claim 6 (Original): The data communication device as claimed in claim 1, wherein said transmission-request generating unit includes:

a time generating unit generating a current time;

a data deciding unit deciding whether the data related to said image-forming device is stored in said data-storing unit;

a time setting unit setting a transmission time corresponding to the data related to said image-forming device, if said data deciding unit decides that the data related to said image-forming device is stored in said data-storing unit; and

a time comparing unit comparing the current time with the transmission time, and generating the transmission request if deciding that the current time matches with the transmission time.

Claim 7 (Original): The data communication device as claimed in claim 1, further comprising a call-origin deciding unit being always supplied with the electricity from said power source, and deciding whether a call origin is said central management device based on a signal received continuously after a call signal, if receiving the call signal from said communication line in accordance with a call out made by the call origin,

wherein said power-supply control unit is always supplied with the electricity from said power source, and supplies the electricity from said power source to said communication-related part if said call-origin deciding unit decides that the call origin is said central management device, and

wherein said data transmission unit transmits the data related to said image-forming device to said control management device if being supplied with the electricity from said power source.

Claim 8 (Original): The data communication device as claimed in claim 7, wherein said power-supply control unit stops supplying the electricity from said power source to said communication-related part, after said data transmission unit completes transmitting the data related to said image-forming device to said central management device.

Claim 9 (Original): The data communication device as claimed in claim 1, further comprising:

a transmission-request-signal transmitting unit;

a data writing unit; and

an acquisition-request generating unit being always supplied with electricity from said power source, and generating an acquisition request that requests for acquisition of the data related to said image-forming device from said image-forming device,

wherein said power-supply control unit supplies the electricity from said power source to said transmission-request-signal transmitting unit and said data writing unit if said acquisition-request generating unit generates the acquisition request, said transmission-request-signal transmitting unit transmits a transmission-request signal to said image-forming device if being supplied with the electricity from said power source, and said data writing unit writes the data related to said image-forming device in said data-storing unit if receiving the data related to said image-forming device from said image-forming device in response to said transmission-request signal after being supplied with the electricity from said power source.

Claim10 (Original): The data communication device as claimed in claim 9, wherein said power-supply control unit stops supplying the electricity from said power source to said transmission-request-signal transmitting unit and said data writing unit, after said data writing unit completes writing the data related to said image-forming device in said data-storing unit.

Claim 11 (Original): The data communication device as claimed in claim 9, wherein said acquisition-request generating unit includes:

a time generating unit generating a current time; and

a time comparing unit comparing the current time with a predetermined data-acquisition time, and generating the acquisition request if deciding that the current time matches with the data-acquisition time.

Claim 12 (Original): The data communication device as claimed in claim 7, further comprising:

a data-type deciding unit; and

a transmission-request-signal transmitting unit,

wherein said power-supply control unit supplies the electricity from said power source to said data-type deciding unit and said transmission-request-signal transmitting unit if said call-origin deciding unit decides that the call origin is the central management device,

wherein said data-type deciding unit decides a type of data that should be transmitted to said central management device based on said signal received continuously after the call signal from said communication line, after being supplied with the electricity from said power source,

wherein said transmission-request-signal transmitting unit transmits a transmission-request signal to said image-forming device, if and only if said transmission-request-signal transmitting unit is supplied with the electricity from said power source, and said data-type deciding unit decides that said data which should be transmitted to said central management device is the data related to said image-forming device, and

wherein said data transmission unit transmits the data related to said image-forming device, to said central management device, if and only if being supplied with the electricity from said power source and receiving said data related to said image-forming device from said image-forming device in response to the transmission-request signal.

Claim 13 (Original): The data communication device as claimed in claim 12, wherein said transmission-request-signal transmitting unit adds information indicating said type decided by said data-type deciding unit, to the transmission-request signal.

Claim 14 (Original): The data communication device as claimed in claim 1, further comprising a data writing unit,

wherein said power-supply control unit supplies the electricity from said power source if receiving a startup signal starting up said data communication device from said image-forming device, and said data writing unit writes the data related to said image-forming device in said data-storing unit if being supplied with the electricity from said power source and receiving the data related to said image-forming device from said image-forming device.

Claim 15 (Original): The data communication device as claimed in claim 14, wherein said power-supply control unit stops supplying the electricity from said power source

to said data writing unit after said data writing unit completes writing the data related to said image-forming device in said data-storing unit.

Claim 16 (Original): The data communication device as claimed in claim 14, further comprising a data-type deciding unit,

wherein said power-supply control unit supplies the electricity from said power source to said data-type deciding unit if receiving the startup signal from said image-forming device, said data-type deciding unit decides a type of the data related to said image-forming device if receiving the data related to said image-forming device from said image-forming device after being supplied with the electricity from said image-forming device, said power-supply control unit supplies the electricity from said power source to said communication-related part if said data-type deciding unit decides that the data received from said image-forming device is data indicating an abnormal condition, and said data transmission unit transmits the data received from said image-forming device to said data communication device if receiving the electricity from the power source.

Claim 17 (Original): The data communication device as claimed in claim 1, wherein said communication line is a public line, and said image-forming device is a copy machine.

Claim 18 (Original): An image-forming device that is connected to a data communication device, and communicates with a central management device in accordance with control carried out by said data communication device, said image-forming device comprising:

a power source;

a data transmission unit; and

a power-supply control unit being always supplied with electricity from said power source, and supplying the electricity from said power source to a communication-related part including said data transmission unit if receiving a transmission-request signal from said data communication device,

wherein said data transmission unit transmits data related to said image-forming device, to said data communication device if being supplied with the electricity from said power source.

Claim 19 (Original): The image-forming device as claimed in claim 18, wherein said data related to said image-forming device is data that indicates a total number of images formed by said image-forming device or a condition of said image-forming device.

Claim 20 (Original): The image-forming device as claimed in claim 18, wherein said power-supply control unit stops supplying the electricity from said power source to said communication-related part, after said data transmission unit completes transmitting the data related to said image-forming device, to said data communication device.

Claim 21 (Original): The image-forming device as claimed in claim 18, wherein said power-supply control unit supplies the electricity from said power source to a part that needs power supply for acquiring data, which should be transmitted to said central management device among the data related to said image-forming device, if receiving the transmission-request signal from said data communication device.



Claim 22 (Original): The image-forming device as claimed in claim 21, wherein said power-supply control unit stops supplying the electricity from said power source to said part that needs the power supply for acquiring the data, which should be transmitted to said central management device, after said data transmission unit completes transmitting the data that should be transmitted to said central management device, to said data communication device.

Claim 23 (Original): The image-forming device as claimed in claim 21, further comprising a power-supply part setting unit setting the part that needs the power supply for acquiring the data, which should be transmitted to said central management device.

Claim 24 (Original): The image-forming device as claimed in claim 18, wherein said data transmission unit transmits data corresponding to information that indicates a type of data, which should be transmitted to said central management device, and is added to said transmission-request signal, among the data related to said image-forming device, if said data transmission unit is supplied with the electricity from said power source.

Claim 25 (Original): The image-forming device as claimed in claim 24, wherein said power-supply control unit stops supplying the electricity from said power source to said communication-related part, after said data transmission unit completes transmitting the data corresponding to the information, to said data communication device.

Claim 26 (Original): The image-forming device as claimed in claim 24, wherein said power-supply control unit decides the part that needs the power supply for acquiring the data, which should be transmitted to said central management device, based on

said information added to the transmission-request signal, and supplies the electricity from said power source to the part that needs the power supply for acquiring the data, which should be transmitted to said central management device, if receiving the said data-transmission signal from said data communication device.

Claim 27 (Original): The image-forming device as claimed in claim 26, wherein said power-supply control unit stops supplying the electricity from said main power source to said part that needs the power supply for acquiring the data, which should be transmitted to said central management device, after said data transmission unit completes transmitting the data corresponding to the information to said data communication device.

Claim 28 (Original): The image-forming device as claimed in claim 18, further comprising:

- a startup-signal transmitting unit; and
- a main switch,

wherein said power-supply control unit is always supplied with the electricity from said power source, and supplies the electricity from said power source to said image-forming device entirely according to an operation of said main switch,

wherein said startup-signal transmitting unit transmits a startup signal to said data communication device to start up said data communication device if being supplied with the electricity from said power source, and

wherein said data transmission unit transmits the data related to said image-forming device, to said data communication device after said data transmission unit is supplied with the electricity from said power source, and said startup-signal transmitting unit transmits the startup signal to said data communication device.

Claim 29 (Original): The image-forming device as claimed in claim 18, further comprising:

a startup-signal transmitting unit; and

a transmission-request generating unit,

wherein said communication-related part further includes said startup-signal transmitting unit,

wherein said transmission-request generating unit is always supplied with the electricity from said power source, and generates a transmission request that requests for transmission of the data related to said image-forming device to said data communication device,

wherein said power-supply control unit is always supplied with the electricity from said power source, and supplies the electricity from said power source to said communication-related part if said transmission-request generating unit generates the transmission request,

wherein said startup-signal transmitting unit transmits a startup signal to said data communication device to start up said data communication device if being supplied with the electricity from said power source, and

wherein said data transmission unit transmits the data related to said image-forming device, to said data communication device after said data transmission unit is supplied with the electricity from said power source, and said startup-signal transmitting unit transmits the startup signal to said data communication device.

Claim 30 (Original): The image-forming device as claimed in claim 29, wherein said power-supply control unit stops supplying the electricity from said power source

to said communication-related part, after said data transmission unit completes transmitting the data related to said image-forming device to said data communication device.

Claim 31 (Original): The image-forming device as claimed in claim 29, wherein said power-supply control unit supplies the electricity from said power source to a part that needs power supply for acquiring data, which should be transmitted to said central management device among the data related to said image-forming device, if said transmission-request generating unit generates the transmission request.

Claim 32 (Currently Amended): The image-forming device as claimed in claim 31, wherein said power supply control unit stops supplying the electricity from said power source to said part that needs the power supply for acquiring the data, which should be transmitted to said central management device, after said data transmission unit completes transmitting the data that should be transmitted to said central management device, to said data communication device.

Claim 33 (Original): The image-forming device as claimed in claim 31, further comprising a power-supply part setting unit setting the part that needs the power supply for acquiring the data, which should be transmitted to said central management device.

Claim 34 (Original): An image-forming device that is connected to a central management device through a communication line, comprising:

a power source;

a communication control unit controlling communication with said central management device;

a transmission-request generating unit being always supplied with electricity from said power source, and generating a transmission request that requests for data transmission to said central management device; and

a power-supply control unit being always supplied with the electricity from said power source, and supplying the electricity from said power source to said communication control unit if said transmission-request generating unit generates the transmission request,

wherein said communication control unit transmits data related to said image-forming device to said central management device, if being supplied with the electricity from said power source.

Claim 35 (Original): The image-forming device as claimed in claim 34, wherein said central management device is an external device, and said communication line is a public line.

Claim 36 (Original): The image-forming device as claimed in claim 34, wherein said data related to said image-forming device is data that indicates a total number of images formed by said image-forming device or a condition of said image-forming device.

Claim 37 (Original): The image-forming device as claimed in claim 34, wherein said power-supply control unit stops supplying the electricity from said power source to said communication control unit, after said communication control unit completes transmitting the data related to said image-forming device to said central management device.

Claim 38 (Original): The image-forming device as claimed in claim 34, wherein said transmission-request generating unit includes:

a time generating unit generating a current time; and

a time comparing unit comparing the current time with a predetermined data-transmission time, and generating the transmission request if deciding that the current time matches with the data-transmission time.

Claim 39 (Original): The image-forming device as claimed in claim 34, further comprising a call-origin deciding unit being always supplied with the electricity from said power source, and deciding whether a call origin is said central management device based on a signal received continuously after a call signal, if receiving the call signal from said communication line in accordance with a call out made by the call origin,

wherein said power-supply control unit is always supplied with the electricity from said power source, and supplies the electricity from said power source to said communication control unit if said call-origin deciding unit decides that the call origin is said central management device, and

wherein said communication control unit transmits the data related to said image-forming device to said control management device if being supplied with the electricity from said power source.

Claim 40 (Original): The image-forming device as claimed in claim 35, wherein said power-supply control unit stops supplying the electricity from said power source to said communication control unit, after said communication control unit completes transmitting the data related to said image-forming device to said central management device.

Claim 41 (Original): The image-forming device as claimed in claim 39, wherein said power-supply control unit supplies the electricity from said power source to a part that needs power supply for acquiring data, which should be transmitted to said central management device among the data related to said image-forming device, if said call-origin deciding unit decides that the call origin is said central management device.

Claim 42 (Original): The image-forming device as claimed in claim 41, wherein said power-supply control unit stops supplying the electricity from said power source to said part that needs the power supply for acquiring the data, which should be transmitted to said central management device, after said communication control unit completes transmitting the data that should be transmitted to said central management device, to said central management device.

Claim 43 (Original): The image-forming device as claimed in claim 41, further comprising a power-supply part setting unit setting the part that needs the power supply for acquiring the data, which should be transmitted to said central management device.

Claim 44 (Original): The image-forming device as claimed in claim 39, further comprising:

a data-type deciding unit being supplied with the electricity from said power source, and deciding a type of data that should be transmitted to said central management device based on the signal received continuously after the call signal from said communication line, if said call-origin deciding unit decides that the call origin is said central management device; and

a power-supply part deciding unit being always supplied with the electricity from said power source, and deciding a part that needs power supply for acquiring data, which should be transmitted to said central management device among the data related to said image-forming device,

wherein said power-supply control unit supplies the electricity from said power source to a part decided by said power-supply part deciding unit as the part that needs power supply for acquiring data, which should be transmitted to said central management device, and

wherein said communication control unit acquires the data that should be transmitted to said central management device, and transmits the data that should be transmitted to said central management device, to said central management device, if being supplied with the electricity from said power source.

Claim 45 (Original): The image-forming device as claimed in claim 44, wherein said power-supply control unit stops supplying the electricity from said power source to said communication control unit and said part decided by said power-supply part deciding unit as the part that needs power supply for acquiring data, which should be transmitted to said central management device, if said communication control unit completes transmitting the data that should be transmitted to said central management device, to said central management device.

Claim 46 (Original): An image-forming-device management system, comprising:

an image-forming device;

a data communication device; and



a central management device managing said image-forming device remotely through a communication line and said data communication device,

wherein said data communication device includes:

a first power source;

a data-storing unit storing data of said image-forming device;

a data-type deciding unit;

a transmission-request-signal transmitting unit;

a first data transmission unit;

a call-origin deciding unit being always supplied with the electricity from said first power source, and deciding whether a call origin is said central management device based on a signal received continuously after a call signal if receiving the call signal from said communication line in accordance with a call out made by the call origin; and

a first power-supply control unit being always supplied with the electricity from said first power source, and supplying the electricity from said first power source to said data-type deciding unit, said transmission-request-signal transmitting unit and said first data transmission unit, if said call-origin deciding unit decides that the call origin is said central management device,

wherein said data-type deciding unit decides a type of data that should be transmitted to said central management device based on the signal received continuously after the call signal from said communication line, if being supplied with the electricity from said first power source,

wherein said transmission-request-signal transmitting unit transmits a transmission-request signal to said image-forming device, if and only if said transmission-request-signal transmitting unit is supplied with the electricity from said first power source,

and said data-type deciding unit decides that the data which should be transmitted to said central management device is the data related to said image-forming device,

wherein said first data transmission unit transmits the data related to said image-forming device to said central management device if being supplied with the electricity from said first power source, and receiving the data related to said image-forming device from said image-forming device in response to the transmission-request signal transmitted to said image-forming device by the transmission-request-signal transmitting unit, and

wherein said first power-supply control unit stops supplying the electricity from said first power source to said data-type deciding unit, said transmission-request-signal transmitting unit and said first data transmission unit, after said first data transmission unit completes transmitting the data related to said image-forming device to said central management device,

wherein said image-forming device includes:

a second power source;

a second data transmission unit; and

a second power-supply control unit that is always supplied with the electricity from said second power source, and supplies the electricity from said second power source to a communication-related part including said second data transmission unit if receiving the transmission-request signal from said data communication device,

wherein said second data transmission unit transmits the data related to said image-forming device, to said data communication device if being supplied with the electricity from said second power source, and

wherein said second power-supply control unit stops supplying the electricity from said second power source to said communication-related part after said second data

transmission unit completes transmitting the data related to said image-forming device to said data communication device.

Claim 47 (Original): The image-forming-device management system as claimed in claim 46,

wherein said transmission-request-signal transmitting unit of the data communication device adds information indicating the type of the data that should be transmitted to said central management device, to the transmission-request signal, said type being decided by said data-type deciding unit, and

wherein said second power-supply control unit of the image-forming device decides a part that needs power supply for acquiring data that should be transmitted to said central management device based on said information added to the transmission-request signal if receiving the transmission-request signal from said data communication device, and supplies the electricity from said second power source to a part decided by said second power-supply control unit as the part that needs power supply for acquiring the data that should be transmitted to said central management device, and stops supplying the electricity from said second power source to said part decided by said second power-supply control unit as the part that needs power supply for acquiring the data that should be transmitted to said central management device, after said second data transmission unit completes transmitting the data that should be transmitted to said central management device, to said data communication device.

Claim 48 (Original): The image-forming-device management system as claimed in claim 46, wherein said data related to said image-forming device is data that

indicates a total number of images formed by said image-forming device or a condition of said image-forming device.

Claim 49 (Original): A method of controlling power supply in an image-forming-device management system that remotely manages an image-forming device by using a central management device through a communication line and a data communication device, said method comprising the steps of:

supplying electricity constantly from a power source of said data communication device to call-signal receiving means for receiving a call signal from the communication line according to a call out made by a call origin, and call-origin deciding means for deciding whether the call origin is said central management device when receiving the call signal by the call-signal receiving means;

supplying the electricity from the power source of said data communication device to a communication-related part if deciding that the call origin is said central management device by said call-origin deciding means, said communication-related part including data-type deciding means for deciding a type of data that should be transmitted to said central management device based on a signal received continuously after the call signal from said communication line, transmission-request signal transmitting means for transmitting a transmission-request signal added with information indicating the type of the data that should be transmitted to said central management device, said type being decided by said data-type deciding means, to said image-forming device if recognizing that the data which should be transmitted to said central management device is data related to said image-forming device based on a result of deciding the type of the data that should be transmitted to said central management device, and data transmission means for receiving data from said image-forming device in response to the transmission-request signal transmitted to said

image-forming device, and transmitting the data received from said image-forming device to said central management device;

stopping the power supply from said power source to said communication-related part after completing transmission of the data received from said image-forming device to said central management device;

supplying the electricity constantly from a power source of said image-forming device to signal receiving means receiving the transmission-request signal from said data communication device;

deciding a part that needs the power supply for acquiring the data which should be transmitted to said central management device among the data related to said image-forming device, based on said information added to the transmission-request signal if the transmission-request signal is received by said signal receiving means;

supplying the electricity from the power source of said image-forming device to the part that needs the power supply for acquiring the data which should be transmitted to said central management device, and a part that needs the power supply for transmitting the data to said data communication device; and

stopping the power supply from the power source of said image-forming device to the part that needs the power supply for acquiring the data which should be transmitted to said central management device, and the part that needs the power supply for transmitting the data to said data communication device, after transmitting the data to said data communication device.

Claim 50 (Original): A method of controlling power supply in an image-forming-device management system that manages an image-forming device by using a

central management device through a data communication device, said method comprising the steps of:

supplying electricity constantly from a power source of said data communication device to call-signal receiving means for receiving a call signal from a call origin, and call-origin deciding means for deciding whether the call origin is said central management device when receiving the call signal by the call-signal receiving means, in said data communication device;

supplying the electricity from the power source of said data communication device to a communication-related part if deciding that the call origin is said central management device;

transmitting a transmission request from said data communication device to said image forming device by use of said communication-related part;

receiving data from said image-forming device in response to the transmission request transmitted to said image-forming device;

transmitting the data to said central management device; and

stopping supplying the electricity from said power source to said communication-related part after transmitting the data to said central management device.

Claim 51 (Original): The method as claimed in claim 50, further comprising the steps of:

supplying the electricity constantly from a power source of said image-forming device to request receiving means receiving the transmission request from said data communication device, in said image forming device;

deciding a first part that needs the power supply for acquiring the data, based on the transmission request if the transmission-request signal is received by said signal receiving means;

supplying the electricity from the power source of said image-forming device to the first part, and a second part that needs the power supply for transmitting the data to said data communication device;

transmitting the data to said data communication device; and

stopping supplying the electricity from the power source of said image-forming device to the first part and the second part after transmitting the data to said data communication device.